SEQUENCE LISTING

<110> van Rooijen, Gijs Keon, Richard Glenn Boothe, Joseph Shen, Yin

<120> Commercial Production of Chymosin in Plants

<130> 9369-153

<140> 09/643,755

<141> 2000-08-23

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<170> PatentIn Ver. 2.0

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<212> DNA

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ctc tac aaa ggt aag tct ctc cgt aag gcg ctg aag gaa cat gga ctt 144 Leu Tyr Lys Gly Lys Ser Leu Arg Lys Ala Leu Lys Glu His Gly Leu

cta gaa gac ttc ttg cag aaa caa cag tat ggc atc agc agc aag tac 192 Leu Glu Asp Phe Leu Gln Lys Gln Gln Tyr Gly Ile Ser Ser Lys Tyr 50 55 60

tcc ggc ttc ggt gaa gtt gct agc gtg cca ctt acc aac tac ctt gat 240 Ser Gly Phe Gly Glu Val Ala Ser Val Pro Leu Thr Asn Tyr Leu Asp 65 70 75 80

agt caa tac ttt ggg aag atc tac ctc gga acc ccg cct caa gag ttc 288 Ser Gln Tyr Phe Gly Lys Ile Tyr Leu Gly Thr Pro Pro Gln Glu Phe 85 90 95

acc gtt ctc ttt gat act ggt tcc tct gac ttc tgg gtt ccc tct atc 336
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DEC 0 4 2000 8

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	ggt Gly															576
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	agg Arg															720
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ctg Leu	acc Thr	ccc Pro	tcc Ser 340	gcc Ala	tat Tyr	acc Thr	agc Ser	cag Gln 345	gat Asp	caa Gln	Gly ggg	ttc Phe	tgc Cys 350	acc Thr	agt Ser	1056
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Leu Thr Pro Ser Ala Tyr Thr Ser Gln Asp Gln Gly Phe Cys Thr Ser 340 350 345 Gly Phe Gln Ser Glu Asn His Ser Gln Lys Trp Ile Leu Gly Asp Val Phe Ile Arg Glu Tyr Tyr Ser Val Phe Asp Arg Ala Asn Asn Leu Val 380 Gly Leu Ala Lys Ala Ile <210> 3 <211> 3957 <212> DNA <213> Artificial Sequence <220> <221> CDS <222> (1554)..(2726) <220> <223> Description of Artificial Sequence: Phaseolin promoter- pre-prochymosin-phaseolin terminator <400> 3 ctgcaggaat tcattgtact cccagtatca ttatagtgaa agttttggct ctctcgccgg 60 tggtttttta cctctattta aaggggtttt ccacctaaaa attctggtat cattctcact 120 ttacttgtta ctttaatttc tcataatctt tggttgaaat tatcacgctt ccgcacacga 180 tatccctaca aatttattat ttgttaaaca ttttcaaacc gcataaaatt ttatgaagtc 240 ccgtctatct ttaatgtagt ctaacatttt catattgaaa tatataattt acttaatttt 300 agcgttggta gaaagcataa agatttattc ttattcttct tcatataaat gtttaatata 360 caatataaac aaattettta eettaagaag gattteeeat tttatatttt aaaaatatat 420 ttatcaaata tttttcaacc acgtaaatct cataataata agttgtttca aaagtaataa 480 aatttaactc cataattttt ttattcgact gatcttaaag caacacccag tgacacaact 540 agccattttt ttctttgaat aaaaaaatcc aattatcatt gtattttttt tatacaatga 600 aaatttcacc aaacaatcat ttgtggtatt tctgaagcaa gtcatgttat gcaaaattct 660 ataatteeea tttgacaeta eggaagtaae tgaagatetg ettttacatg egagaeaeat 720 cttctaaagt aattttaata atagttacta tattcaagat ttcatatatc aaatactcaa 780 tattacttct aaaaaattaa ttagatataa ttaaaatatt acttttttaa ttttaagttt 840 aattgttgaa tttgtgacta ttgatttatt attctactat gtttaaattg ttttatagat 900 agtttaaagt aaatataagt aatgtagtag agtgttagag tgttacccta aaccataaac 960 tataacattt atggtggact aattttcata tatttcttat tgcttttacc ttttcttggt 1020 atgtaagtcc gtaactagaa ttacagtggg ttgccatggc actctgtggt cttttggttc 1080 atgcatgggt cttgcgcaag aaaaagacaa agaacaaaga aaaaagacaa aacagagaga 1140

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tgcg	gtgto	cat o	ccca	tgcc	ca a	atct	ccat	g cat	gtt	ccaa	cca	1440						
taco	ctata	aaa 1	cacci	tcta	at a	tcactcact tctttcatca						tccatccatc cagagtacta						
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ctga	agcto	cca t	ctca	actto	ct to	ctate	gaata	a aad	caaag	ggat	gtta	atgai	tat a	attaa	acactc	2876
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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Phaseolin promoter- pre-prochymosin-phaseolin terminator

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Leu Glu Asp Phe Leu Gln Lys Gln Gln Tyr Gly Ile Ser Ser Lys Tyr 50 55 60

Ser Gly Phe Gly Glu Val Ala Ser Val Pro Leu Thr Asn Tyr Leu Asp 65 70 75 80

Ser Gln Tyr Phe Gly Lys Ile Tyr Leu Gly Thr Pro Pro Gln Glu Phe 85 90 95

Thr Val Leu Phe Asp Thr Gly Ser Ser Asp Phe Trp Val Pro Ser Ile 100 105 110

Tyr Cys Lys Ser Asn Ala Cys Lys Asn His Gln Arg Phe Asp Pro Arg 115 120 125

Lys Ser Ser Thr Phe Gln Asn Leu Gly Lys Pro Leu Ser Ile His Tyr 130 135 140

Gly Thr Gly Ser Met Gln Gly Ile Leu Gly Tyr Asp Thr Val Thr Val 145 150 155

Ser Asn Ile Val Asp Ile Gln Gln Thr Val Gly Leu Ser Thr Gln Glu

165 170 175 Pro Gly Asp Val Phe Thr Tyr Ala Glu Phe Asp Gly Ile Leu Gly Met 180 185 Ala Tyr Pro Ser Leu Ala Ser Glu Tyr Ser Ile Pro Val Phe Asp Asn Met Met Asn Arg His Leu Val Ala Gln Asp Leu Phe Ser Val Tyr Met Asp Arg Asn Gly Gln Glu Ser Met Leu Thr Leu Gly Ala Ile Asp Pro 230 235 Ser Tyr Tyr Thr Gly Ser Leu His Trp Val Pro Val Thr Val Gln Gln 250 Tyr Trp Gln Phe Thr Val Asp Ser Val Thr Ile Ser Gly Val Val Val 265 Ala Cys Glu Gly Gly Cys Gln Ala Ile Leu Asp Thr Gly Thr Ser Lys 280 Leu Val Gly Pro Ser Ser Asp Ile Leu Asn Ile Gln Gln Ala Ile Gly Ala Thr Gln Asn Gln Tyr Gly Glu Phe Asp Ile Asp Cys Asp Asn Leu 305 310 315 320315 Ser Tyr Met Pro Thr Val Val Phe Glu Ile Asn Gly Lys Met Tyr Pro Leu Thr Pro Ser Ala Tyr Thr Ser Gln Asp Gln Gly Phe Cys Thr Ser Gly Phe Gln Ser Glu Asn His Ser Gln Lys Trp Ile Leu Gly Asp Val 360 Phe Ile Arg Glu Tyr Tyr Ser Val Phe Asp Arg Ala Asn Asn Leu Val 375 380 Gly Leu Ala Lys Ala Ile